What is claimed is:

1.   An access management system managing access to a smart card by a plurality of applications, comprising:

an exclusion control unit allowing an application exclusive access to a smart card, in response to an exclusive access request for the smart card from the application, when the smart card has a logical channel not exclusively accessed by another application; and

an access control unit permitting the application allowed the exclusive access to access the smart card, in response to an access request for the smart card from the application, when the application has already been authenticated for the smart card.

2.   The system according to claim 1, wherein said exclusion control unit queues an application which issues an exclusive access request in response to an exclusive access request for the smart card from the application when the smart card has no logical channel not exclusively accessed by another application.

3.   The system according to claim 1, wherein said access control unit rejects the access request from the application allowed the exclusive access if the application has not been authenticated for the smart card.

4.   The system according to claim 1, wherein said access control unit manages authentication between an application and a smart card using a process ID of the application.

5.   The system according to claim 1, wherein said access control unit changes an application authenticated for a smart card into a non-authenticated application when the smart card is extracted from a smart card reader.

6.   The system according to claim 1, wherein when said application accesses the smart card plural times, said application issues the exclusive access request to said exclusion control unit each time the access is started, and issues an exclusive access cancellation notification to said exclusion control unit each time the access terminates.

7.   The system according to claim 6, wherein
said exclusion control unit queues an application which issues an exclusive access request for a smart card if the smart card has already been exclusively accessed by another application, and allows the queued application exclusive access upon receipt of the exclusive access cancellation notification from the application which has exclusively accessed the smart card.

8.   The system according to claim 1, wherein
said access control unit request a smart card to cancel authentication of an application, in response to a smart card authentication cancellation notification from the application, when the application is the last application authenticated for the smart card.

9.   An access management system managing access to a smart card by a plurality of applications, comprising:
exclusion control means for allowing an application exclusive access to a smart card, in

response to an exclusive access request for the
smart card from the application, when the smart
card has a logical channel not exclusively accessed
by another application; and

5   access control means for permitting the
application allowed the exclusive access to access
the smart card, in response to an access request
for the smart card from the application, when the
application has already been authenticated for the
10   smart card.

10.   A method for sharing a smart card and managing
access to the smart card by a plurality of
applications, comprising:

15   allowing an application exclusive access to a
smart card, in response to an exclusive access
request for the smart card from the application,
when the smart card has a logical channel not
exclusively accessed by another application; and

20   permitting the application allowed the
exclusive access to access the smart card, in
response to an access request for the smart card
from the application allowed the exclusive access,
when the application allowed the exclusive access
25   has already been authenticated for the smart card.

11.   An   application   including   a   plurality   of
accessing processes to one smart card, wherein:

an exclusive access request is issued for each
accessing process each time the accessing process
is   started,   and   an   exclusive   access   cancellation
notification   is   issued   each   time   each   accessing
process terminates; and

an   authentication   request   is   issued   for   a
smart card to be accessed only in a first accessing
process in said plurality of accessing processes.

12.   A   library   of   an   application   including   a
plurality of accessing processes to one smart card,
wherein:

an exclusive access request is issued for each
accessing process each time the accessing process
is   started,   and   an   exclusive   access   cancellation
notification   is   issued   each   time   each   accessing
process terminates; and

an   authentication   request   is   issued   for   a
smart card to be accessed only in a first accessing
process in said plurality of accessing processes.

13.   A storage medium readable by an information

processing device, in which a plurality of applications are operated in parallel, storing a program used to direct the information processing device to perform the processes of:

5   allowing an application exclusive access to a smart card, in response to an exclusive access request for the smart card from the application, when the smart card has a logical channel not exclusively accessed by another application; and

10   permitting the application allowed the exclusive access to access the smart card, in response to an access request for the smart card from the application, when the application has already been authenticated for the smart card.

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